

Taxonomic notes on the genus *Crumomyia* (Diptera: Sphaeroceridae) from Japan and Taiwan.

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Abstract: *Crumomyia kanmiyai* sp. nov. is described from Taiwan, and *C. peishulensis* Kuznetzova, 1989 is recorded from Japan for the first time.

Key words: *Crumomyia kanmiyai* sp. nov., *C. peishulensis*, Diptera, Sphaeroceridae, Japan, Taiwan

The *Crumomyia* Macquart is mainly a holarctic genus, and few species are known in the Oriental Region. Thirty-five species and 3 subspecies are described up to the present, of these, 2 species are indigenous to the Oriental Region (Papp, 2003; Roháček et al, 2001). In the course of taxonomic study of Asian *Crumomyia*, I found a new species from Taiwan and describe it in this paper. The genus is recorded from Taiwan for the first time.

Nishijima and Yamazaki (1984) recorded *Crumomyia glabrifrons* (Meigen, 1830) from Hokkaido, Japan. Through the courtesy of Prof. M. Iwasa of Obihiro University of Agriculture and Veterinary Medicine, I had a chance to examine the specimens studied by them preserved in his laboratory. As a result, I identified them as *Crumomyia peishulensis* Kuznetzova, 1989. The species is little known and formerly known only from Primorye district, Russia, therefore I redescribe it.

The specimens examined in this study are preserved in the Reference Museum, Department of Medical Entomology, the National Institute of Infectious Diseases, Tokyo (NIID) and Laboratory of Entomology, Obihiro University of Agriculture and Veterinary Medicine, Obihiro, Hokkaido (OU).

Crumomyia kanmiyai Hayashi, sp. nov.

(Figs. 1–4)

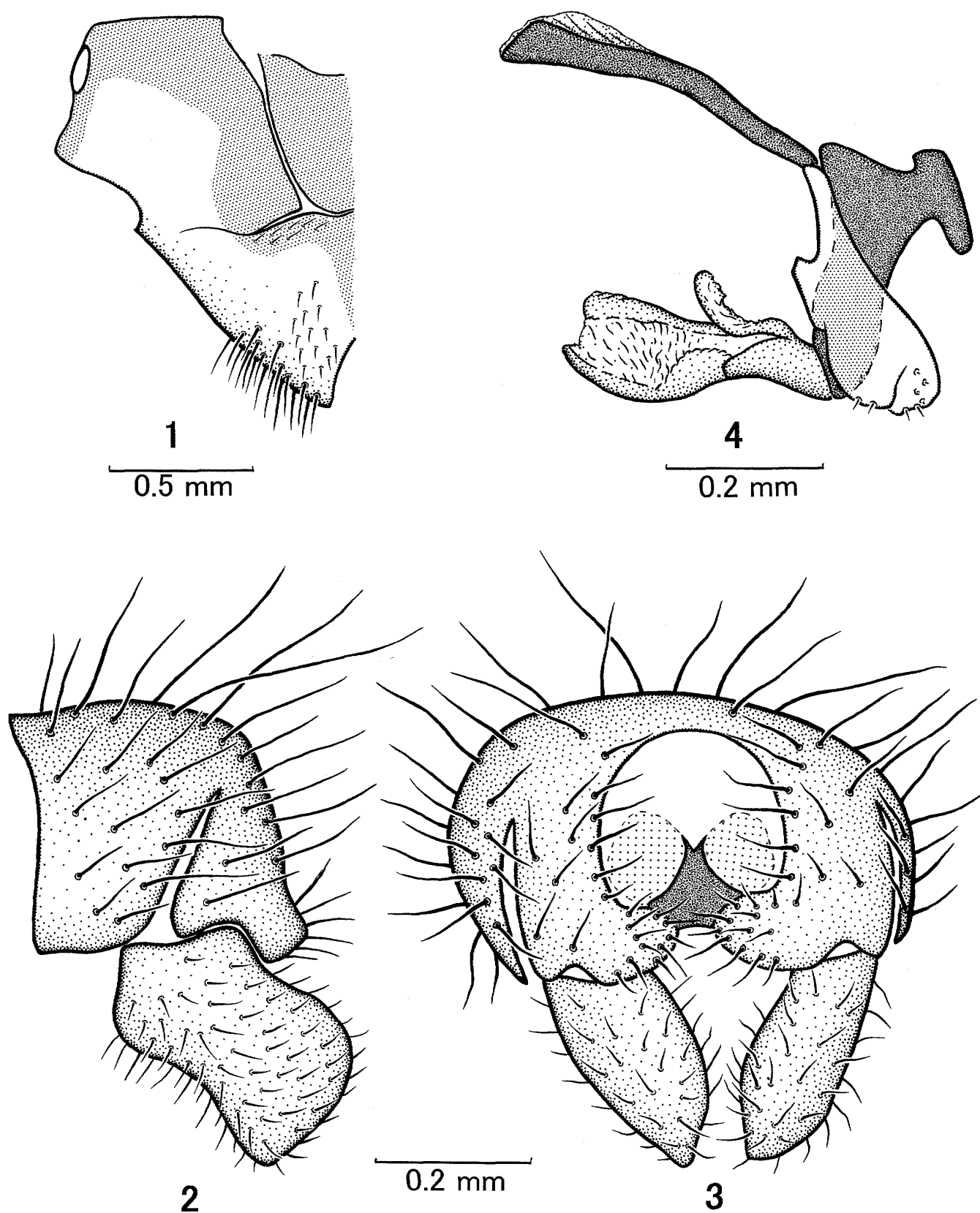
Description of holotype.

Body length 4.1 mm.

Head: Somewhat higher than long in lateral view; mostly black, anterior part of frons M-shapedly reddish brown, gena and face reddish brown; entirely microtomentose except for narrow vertical bare area on posterior part of gena; 6 fine *if*, almost same strength; 1 *vti*, 1 *vte*, 1 *oc*, 2 developed *ors*; eye normal, oval, its longest diameter about 2.3 times as long as smallest genal width; antenna reddish brown; arista long, about 5.0 times as long as 1st flagellomere, moderately long pubescent.

Thorax: Black, dorsally brown microtomentose; 1 + 2 *dc*, anterior 2 weak, 4 rows of *ac* microsetae; microtomentose pattern of anepisternum and katepisternum as in Fig. 1; scutellum with 2 small additional marginal setae besides normal 2 *sctl*.

Wing: Light brown; Costa entirely brown, not darkened on basal part, other veins brown, slightly clouded on cross-veins; halter yellow, basal part somewhat brownish.



Figs. 1-4. *Crumomyia kanmiyai* sp. nov.; 1, anepisternum and katepisternum; 2, male terminalia, lateral view; 3, ditto, caudal view; 4, male inner genitalia.

Legs: Coxae and femora entirely black, tibiae and tarsi yellowish brown, central part of tibiae only slightly darkened; fore femur somewhat thickened.

Abdomen: Black, tergites entirely microtomentose; sternites 2–4 weakly sclerotized; sternite 5 sclerotized, divided into 2 sclerites; tip of surstylus (Fig. 2) somewhat rounded; paramere (Fig. 4) resembling that of *C. nipponica* (Richards, 1964); basiphallus with small epiphallus and without pre-epiphallus, not expanded basally; dorsolateral arms of distiphallus rather long.

TYPE SERIES. Holotype ♂, Tatachia-anpu, 2,650 m, Chia-i Hsien, Taiwan, 31 Oct. 1985, K. Kanmiya (NIID).

ETYMOLOGY. The specific name is dedicated to Dr. K. Kanmiya of Kurume University, who collected a type specimen.

DISTRIBUTION. Taiwan.

REMARKS. This species is closely related to *Crumomyia nipponica* (Richards, 1964), but it is easily distinguishable from *C. nipponica* by larger body size, largely reddish brown frons and gena, paler tibiae, shape of surstylus and not expanded basal part of basiphallus.

***Crumomyia peishulensis* Kuznetzova, 1989**

(Figs. 5–8)

(Japanese name: Kurotsuya-Oh-Funkobae)

Crumomyia peishulensis Kuznetzova, 1989: 207.

Crumomyia glabrifrons (Meigen, 1830).—Nishijima and Yamazaki, 1984: 78.

Redescription.

Body length 2.9–3.2 mm.

Head: Somewhat longer than high in lateral view; mostly black including frons, gena and face; frontal triangle largely bare; gena with large bare area (Kuznetzova, 1989; Fig. 38); about 8 fine *if*, almost same strength; 1 *vti*, 1 *vte*, 1 *oc*, 2 developed *ors*; eye normal, oval, its longest diameter about 3.0 times as long as smallest genal width; antenna dark brown: arista long, about 5.0 times as long as 1st flagellomere, moderately long pubescent.

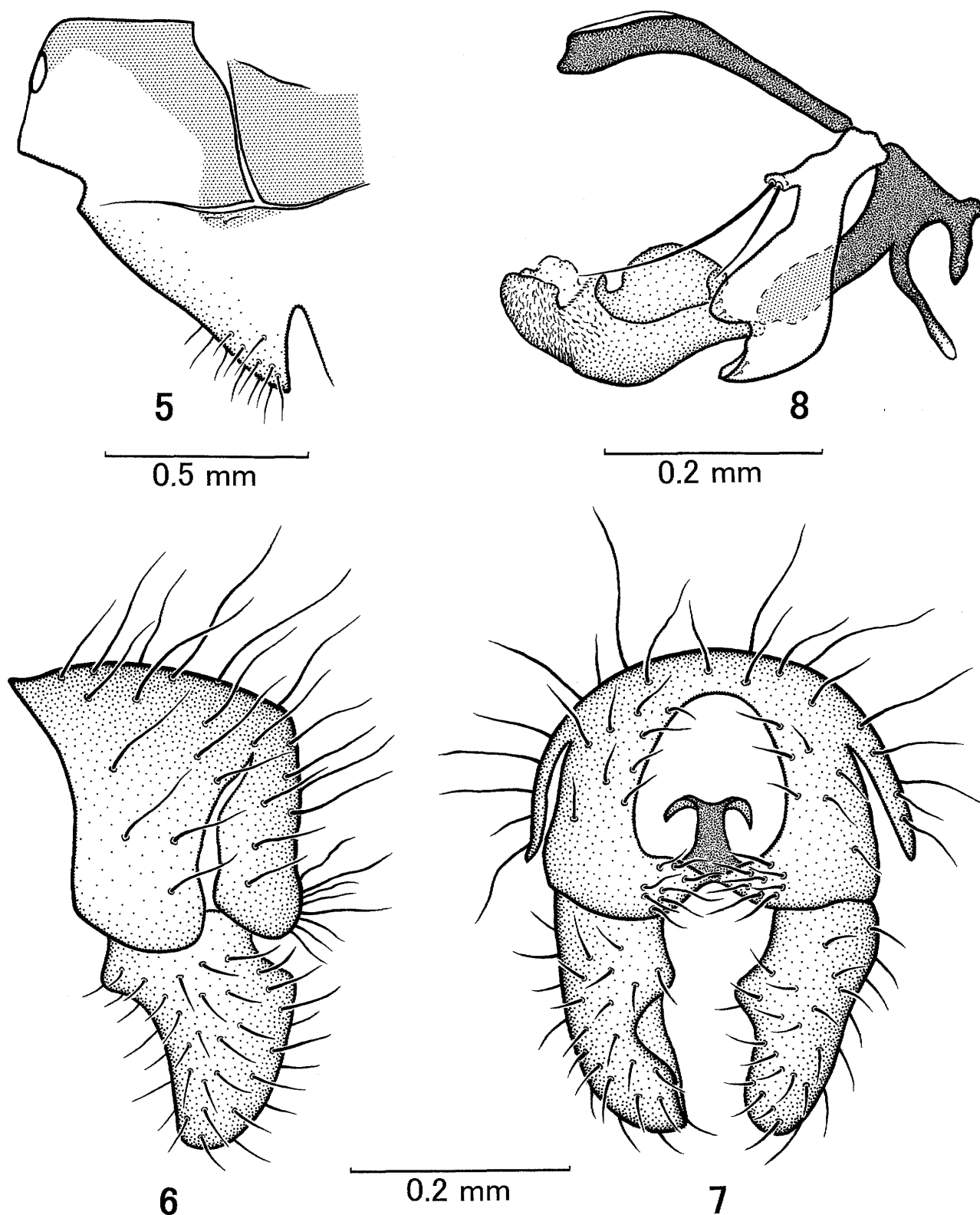
Thorax: Black, dorsally thinly brown microtomentose; 1 + 2 *dc*, anterior 2 weak, about 6 rows of *ac* microsetae; microtomentose pattern of anepisternum and katepisternum as in Fig. 5; scutellum without additional marginal setae except for normal 2 *sctl*.

Wing: Light brown; costa entirely brown, not darkened on basal part, other veins brown, not clouded on cross-veins; halter with brown to yellowish brown knob and yellowish brown stem.

Legs: Mostly dark brown to black, extreme bases of tibiae paler; fore femur somewhat thickened.

Abdomen: Black, tergites entirely microtomentose; sternites 2–4 weakly sclerotized; sternite 5 sclerotized, concave anteromedially; surstylus as in Figs. 6 and 7; paramere (Fig. 8) with 2 long setae near base; basiphallus with small epiphallus and developed pre-epiphallus, dorsolateral arms of distiphallus not so developed.

SPECIMENS EXAMINED. 5♂, Harushinai, Asahikawa, Kamikawa, Hokkaido, Japan,



Figs. 5-8. *Crumomyia peishulensis* Kuznetzova; 5, anepisternum and katepisternum; 6, male terminalia, lateral view; 7, ditto, caudal view; 8, male inner genitalia.

29 April 1978, K. Yamazaki (3♂ OU; 2♂ NIID).

DISTRIBUTION. Russia and Japan (Hokkaido)(new record).

REMARKS. This species was firstly recorded by Nishijima and Yamazaki (1984) as *Crumomyia glabrifrons* (Meigen). In Japan, 2 species of the genus *Crumomyia*, *C. annulus* (Walker, 1849) and *C. nipponica*, are known up to date. This species is easily distinguishable from them by the following characters: scutellum without additional marginal setae other than 2 *sctl*; wing without dark markings on cross-veins; pre-epiphallus distinct and long.

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